

ABSTRACT OF THE DISCLOSURE

An integrated optical component and FSO transceiver using the same. In one embodiment, the integrated optical component comprises a monolithic substrate having a plurality of optics formed therein, including a receiver optic, transmitter optic, a pickoff lens, and a pair of total internal reflection (TIR) fold mirrors. The receiver optic directs a majority of an incoming optical signal towards a data detector, while a small portion of the optical signal passes through the pickoff lens, is redirected by a first TIR fold mirror towards a second TIR fold mirror, and is then redirected towards a optical beam position sensor. In another embodiment, a plurality of tracking lenses and respective TIR fold mirrors are disposed around the periphery of the receiver optic. Portions of the incoming optical signal are received by the tracking lenses, redirected by the TIR fold mirrors toward a TIR combiner and then towards a beam position sensor.

Terabeam/P067AP